Exhibit 11

USEPA's Review of 24-Hour PM2.5 Designations for Illinois

USEPA, Attachment to Exhibit 10, Letter to Governor Blagojevich (August 18, 2008).

Review of Designations in Illinois
For the Particulate Matter Air Quality Standard

The table below identifies the counties in Illinois that EPA intends to designate as not attaining the 2006 24-hour fine particle (PM2.5) standard.[1] A county will be designated as nonattainment if it has an air quality monitor that is violating the standard or if the county is determined to be contributing to the violation of the standard.

Where EPA intends to include only part of a county in a nonattainment area, we have indicated the boundaries of the portion of the county that will be included. Following this table is a discussion of each area and the basis for EPA's intended designations and then a description of the data EPA examined. EPA intends to designate as attainment/ unclassifiable all other Illinois counties or parts thereof not identified in the table below.

Area	Current $PM_{2.5}$ Nonattainment Area	Illinois Recommended Nonattainment Counties	EPA's Intended Nonattainment Counties
Chicago-Gary-Kenosha, IL-IN-WI	Cook Du Page Kane Lake Mc Henry Will Grundy: Aux Sable Township Goose Lake Twp. Kendall: Oswego Township	Cook Du Page Kane Lake Mc Henry Will Grundy: Aux Sable Township Goose Lake Township Kendall: Oswego Township	Cook Du Page Kane Lake Mc Henry Will Grundy: Aux Sable Township Goose Lake Township Kendall: Oswego Township
Davenport-Rock Island, IA-IL	None	None	Rock Island
Paducah, KY-IL	None	None	Massac
Saint Louis, MO-IL	Madison Monroe St Clair Randolph: Baldwin Township	Madison Monroe St Clair Randolph: Baldwin Township*	Madison Monroe St Clair Randolph: Baldwin Township

* Illinois recommended a slightly smaller partial county area, excluding a portion of Baldwin Township from the nonattainment area. EPA intends to retain the entire Baldwin Township in the nonattainment area.

[1] EPA designated nonattainment areas for the 1997 fine particle standards in 2005. In 2006, the 24-hour PM2.5 standard was revised from 65 micrograms per cubic meter (average of 98th percentile values for 3 consecutive years) to 35 micrograms per cubic meter; the level of the annual standard for PM2.5 remained unchanged at 15 micrograms per cubic meter (average of annual averages for 3 consecutive years).

On June 8, 2007, in a memorandum from Robert Meyers to the EPA Regional Administrators, EPA issued guidance on a timetable for designation of areas violating the PM2.5 air quality standards promulgated in 2006 and factors that EPA urged states to consider as they prepared recommendations for nonattainment area boundaries. This guidance was sent to the Governor of Illinois as an attachment to a letter dated July 9, 2007, requesting the State's recommendations.

Pursuant to section 107(d) of the Clean Air Act, EPA must designate as nonattainment those areas that violate the NAAQS and those areas that contribute to violations. The technical analysis for each area identifies the counties with monitors that violate the 24-hour PM2.5 standard and evaluates the counties that potentially contribute to fine particle concentrations in the area. EPA has evaluated these counties based on the weight of evidence of the following nine factors recommended in EPA guidance and any other relevant information:

- pollutant emissions
- air quality data
- population density and degree of urbanization
- traffic and commuting patterns
- growth
- meteorology
- geography and topography
- jurisdictional boundaries
- level of control of emissions sources

Additional background information on each of the nine factors can also be found in the background section below.

EPA also computed a Contributing Emissions Score (CES) for each county. The CES is a metric that takes into consideration emissions data, meteorological data, and air quality monitoring information to provide a relative ranking of potential impacts of counties in and near an area on violating monitors. While this metric provides a useful synthesis of important relevant information, including weighting the emissions of various pollutants according to estimates of the relative importance of each pollutant, the CES is not the exclusive variable EPA uses to consider these factors. A summary of the CES is included in the background section, and a more detailed description can be found at http://www.epa.gov/ttn/naaqs/pm/pm25_2006_techinfo.html#C.

Review for the Illinois Portion of the Chicago-Gary-Kenosha, IL-IN-WI Metropolitan Area

Discussion:
EPA reviewed relevant information for the ten counties (including eight counties in Illinois) partly or fully within the area designated nonattainment for the 1997 standards as well as for surrounding counties. There are violating monitors in Cook and Will Counties and in Lake County, Indiana. Illinois recommended a definition of the

nonattainment area for the 2006 standards that reflects the same boundaries within Illinois as were established for the 1997 standards, including (within Illinois) Cook, Du Page, Kane, Lake, Mc Henry, and Will counties, Aux Sable and Goose Lake Townships in Grundy County, and Oswego Township in Kendall County. EPA agrees with this recommendation.

EPA also examined information for other counties within and adjacent to the Combined Statistical Area as well as for adjacent counties. The bulk of emissions and population are captured without including DeKalb, Grundy, Kankakee and Kendall Counties, since these counties have limited emissions and population. Nevertheless, we support the recommendation by the Illinois EPA to include the three townships in Grundy and Kendall counties in the nonattainment area to maintain consistency with the ozone designations and the prior $PM_{2.5}$ designations and thereby facilitate planning, as well as to include slightly more emissions in the planning area.

Emissions for other surrounding counties are relatively low, and no other factor warranted designating these other counties nonattainment.

Figure 1 is a map of the counties in the area and other relevant information such as the locations and design values of air quality monitors, the metropolitan area boundary, and counties recommended as nonattainment by the States.

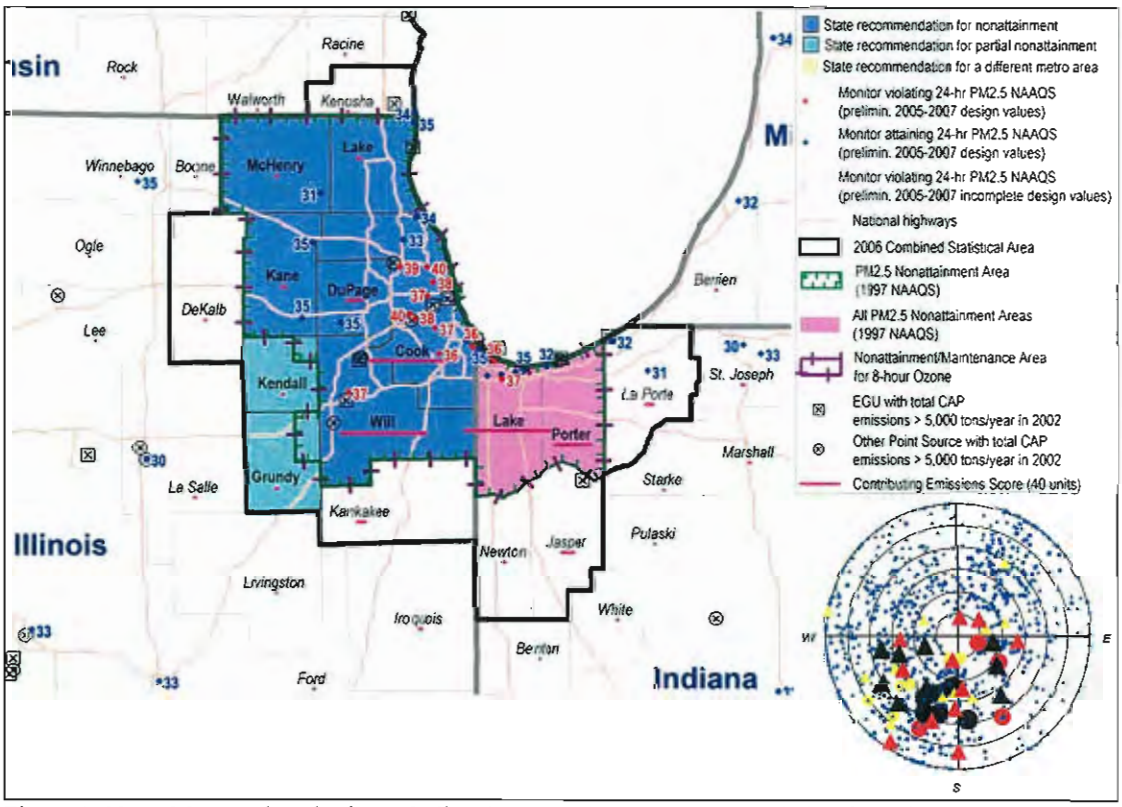

Figure 1- Note: Map produced prior to Indiana's nonattainment recommendation for Lake County, Ind.

Factor 1: Emissions data

Table 1 shows emissions of $PM_{2.5}$ components (given in tons per year) and the CESs for potentially contributing counties in the Chicago area. Counties that are part of the Chicago nonattainment area for the 1997 $PM_{2.5}$ NAAQS are shown in boldface. Counties are listed in descending order by CES.

Table 1. $PM_{2.5}$ 24-hour Component Emissions, and CESs.

County	State Recommended Nonattainment?	CES	$PM_{2.5}$ emissions total (tpy)	$PM_{2.5}$ emissions carbon (tpy)	$PM_{2.5}$ emissions other (tpy)	SO_2 (tpy)	NOx (tpy)	VOCs (tpy)	NH_3 (tpy)
Cook, IL	**Yes**	**100**	**10,081**	**5,407**	**4,674**	**35,354**	**175,267**	**152,288**	**4,550**
Lake, IN	**No**	**100**	**7,079**	**1,219**	**5,861**	**39,500**	**54,203**	**24,679**	**3,784**
Will, IL	**Yes**	**95**	**5,432**	**1,236**	**4,195**	**78,792**	**46,028**	**19,886**	**1,407**
Porter, IN	**No**	**41**	**3,901**	**719**	**3,183**	**24,458**	**29,930**	**9,795**	**909**
DuPage, IL	**Yes**	**16**	**2,075**	**1,259**	**816**	**2,013**	**36,880**	**29,541**	**1,385**
Jasper, IN	No	14	2,641	280	2,360	40,723	20,104	3,367	2,929
Kankakee, IL	No	9	1,660	419	1,242	366	7,351	6,830	1,699
Kane, IL	**Yes**	**4**	**1,997**	**733**	**1,263**	**1,037**	**16,528**	**15,578**	**1,293**
Grundy, IL	**Partial**	**3**	**1,105**	**248**	**857**	**362**	**4,057**	**4,223**	**1,027**
Lake, IL	**Yes**	**3**	**2,657**	**1,070**	**1,587**	**14,719**	**29,478**	**32,778**	**747**
Kendall, IL	**Partial**	**2**	**811**	**230**	**581**	**351**	**3,697**	**3,693**	**753**
McHenry, IL	**Yes**	**1**	**2,102**	**634**	**1,468**	**592**	**9,493**	**10,596**	**1,224**
Kenosha, WI	No	1	1,489	460	1,030	33,988	15,967	7,857	647

Within Illinois, emissions are highest in Cook, Will, DuPage, Lake, Kane, and McHenry Counties. Emissions are moderate in Kankakee, Grundy, and Kendall Counties.

Factor 2: Air quality data

The 24-hour $PM_{2.5}$ design values for counties in the Chicago area are shown in Table 2.

Table 2. Air Quality Data

County	State Recommended Nonattainment?	Design Values 2004-06 ($\mu g/m^3$)	Design Values 2005-07 ($\mu g/m^3$)
Cook, IL	Yes	42	40
Lake, IN	No	38	37
Will, IL	Yes	36	37
Porter, IN	No	31	32
DuPage, IL	Yes	33	35
Kane, IL	Yes	32	35
Grundy, IL	Partial		
Lake, IL	Yes	33	35
Kendall, IL	Partial		
McHenry, IL	Yes	31	31

For purposes of its review, EPA used data available from the Chemical Speciation Network and the Interagency Monitoring of Protected Visual Environments (IMPROVE)

network to estimate the composition of fine particle mass on days with the highest fine particle concentrations. On high concentration days during cold weather months in this area, EPA found on average a total urban contribution of 8.8 $\mu g/m^3$, consisting of 0.4 $\mu g/m^3$ of sulfate, no nitrate, 8.4 $\mu g/m^3$ of organic particles, and no miscellaneous inorganic particulate. On high concentration days during warm weather months in this area, EPA found on average a total urban contribution of 3.9 $\mu g/m^3$, consisting of 0.5 $\mu g/m^3$ of sulfate, 3.1 $\mu g/m^3$ of organic particles, and 0.3 $\mu g/m^3$ of miscellaneous inorganic particulate. These estimates were used for weighting of the emissions of different pollutants in calculating the contributing emissions scores.

Factor 3: Population density and degree of urbanization (including commercial development)

Table 3 shows the 2005 population for each county in the area being evaluated, as well as the population density for each county in that area. Population data give an indication of whether it is likely that population-based emissions might contribute to violations of the 24-hour $PM_{2.5}$ standards.

Table 3. Population

County	State Recommended Nonattainment?	2005 Population	2005 Population Density (pop/sq mi)
Cook, IL	Yes	5,303,943	5545
Lake, IN	No	491,706	980
Will, IL	Yes	642,625	758
Porter, IN	No	157,408	375
DuPage, IL	Yes	931,219	2769
Kane, IL	Yes	483,208	923
Grundy, IL	Partial	43,736	102
Lake, IL	Yes	704,086	1504
Kendall, IL	Partial	79,597	247
McHenry, IL	Yes	304,701	499
Kankakee	No	107,824	158

Within Illinois, the counties with the greatest population are Cook, DuPage, Lake, Will, Kane, and McHenry Counties. The populations and population densities of Kankakee, Grundy, and Kendall Counties are significantly lower.

Factor 4: Traffic and commuting patterns

Table 4. Traffic and Commuting Patterns

County	State Recommended Nonattainment?	2005 VMT (10^6 mi)	Number Commuting to any violating counties	Percent Commuting to any violating counties	Number Commuting into statistical area	Percent Commuting into statistical area
Cook, IL	**Yes**	**35,294**	**2,113,930**	**89**	**2,352,120**	**99**
Lake, IN	**No**	**4,588**	**193,610**	**93**	**206,350**	**99**
Will, IL	**Yes**	**4,605**	**185,690**	**77**	**239,340**	**99**
Porter, IN	**No**	**1,677**	**25,470**	**35**	**70,940**	**98**
DuPage, IL	**Yes**	**8,802**	**161,940**	**35**	**464,630**	**99**
Kane, IL	**Yes**	**3,517**	**36,290**	**19**	**190,780**	**99**

Grundy, IL	**Partial**	**623**	**6,990**	**38**	**17,310**	**95**
Lake, IL	**Yes**	**6,016**	**83,930**	**26**	**313,250**	**99**
Kendall, IL	**Partial**	**678**	**4,230**	**15**	**27,860**	**99**
McHenry, IL	**Yes**	**2,104**	**31,680**	**24**	**130,520**	**98**

The listing of counties on Table 4 reflects a ranking based on the number of people commuting to other counties. The counties that are in the nonattainment area for the 1997 $PM_{2.5}$ NAAQS are shown in boldface. All counties in this table are highly integrated into the Chicago area.

Factor 5: Growth rates and patterns

Table 5 below shows population, population growth, VMT and VMT growth for counties that are included in the Chicago area. Counties are listed in descending order based on VMT growth between 1996 and 2005.

Table 5. Population and VMT Growth and Percent Change.

County	Population (2005)	Population % change (2000-05)	2005 VMT (10^6 mi)	VMT % change (1996-05)
Kane, IL	483,208	18	3,517	364
McHenry, IL	304,701	16	2,104	196
Kendall, IL	79,597	44	678	166
Will, IL	642,625	26	4,605	135
Lake, IL	704,086	9	6,016	82
DuPage, IL	931,219	3	8,802	43
Grundy, IL	43,736	16	623	30
Porter, IN	157,408	7	1,677	10
Lake, IN	491,706	1	4,588	0
Cook, IL	5,303,943	-1	35,294	-14

The growth rates are not expected to yield significant changes in the distribution of population in the area, so this factor did not significantly influence the decision-making process.

Factor 6: Meteorology (weather/transport patterns)

The pollution rose for the Chicago area is provided in the map above. Winds on high concentration days predominantly come from the southwest and southeast, but it is appropriate to include counties in all directions from the violations.

Factor 7: Geography/topography (mountain ranges or other air basin boundaries)

The Chicago area does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in the decision-making process.

Factor 8: Jurisdictional boundaries (e.g., existing PM and ozone areas)

The Chicago Area Transportation Study (CATS) Policy Committee is the Metropolitan Planning Organization (MPO) for the northeastern Illinois region. CATS webpage: http://www.catsmpo.com/.

The Illinois portion of the Chicago ozone nonattainment area consists of the following counties: Cook, Du Page, Kane, Lake, Mc Henry, Will, Aux Sable and Goose Lake Townships in Grundy County, and Oswego Township in Kendall County. Designating a nonattainment area matching these boundaries will facilitate planning.

Factor 9: Level of control of emission sources

The emission estimates on Table 1 include any control strategies implemented by the States in the Chicago area before 2005 that may influence emissions of any component of $PM_{2.5}$ emissions (i.e., total carbon, SO_2, NOx, and crustal $PM_{2.5}$).

Review for the Davenport-Moline-Rock Island Metropolitan Statistical Area

Discussion:
The Davenport-Moline-Rock Island area is currently designated attainment for $PM_{2.5}$. A monitor in Davenport (Scott County) is showing violations of the standard. Illinois recommended including no part of Illinois in the nonattainment area. EPA reviewed relevant information for the four counties in the metropolitan statistical area and for surrounding counties.

EPA believes that the nonattainment area should include Rock Island County in Illinois. Rock Island County has moderate emissions that commonly are blown toward the violating monitor is Scott County. We also believe that sufficient commuting occurs between Rock Island County and Scott County that Rock Island County must be considered an integral part of the Davenport area.

EPA recognizes that emissions in close proximity to the monitor may make an important contribution to the violations. Indeed, EPA recognizes the possibility that reduction of the emissions close to the monitor may suffice to address the violation. Nevertheless, our obligation under Clean Air Act section 107 in defining a nonattainment area is to identify the area that is violating the standard and the area that is contributing to the violation. The area that contributes to the violation is then included in the planning area evaluated for measures for attaining the standard. Even if the state already suspects that its control strategy will focus on sources in the immediate vicinity of the violating monitor, EPA must apply a nonattainment designation to the entire area that contributes to the violation, such that the SIP planning will address the entire contributing area.

Furthermore, the available evidence suggests that local emissions contribute only a fraction of the concentrations in Davenport. A much larger fraction of the concentrations in Davenport arise from emissions farther from the monitor. EPA believes that an important component of these concentrations arises from a contribution from emissions throughout the Quad Cities area. While the impact of Rock Island County appears to be

less than that of Scott Counties, Iowa, the impact nevertheless appears sufficiently substantial to include Rock Island County in the nonattainment area.

EPA also examined information for Henry and Mercer Counties as well as for nearby counties outside the metropolitan area. EPA found that these other counties have relatively low emissions, and no other factor warranted inclusion of the counties in the nonattainment area.

Figure 2 is a map of the counties in the area and other relevant information such as the locations and design values of air quality monitors, the metropolitan area boundary. Iowa did not make formal recommendations, and Illinois recommended that no Illinois counties be included, so this map shows no state recommended nonattainment area.

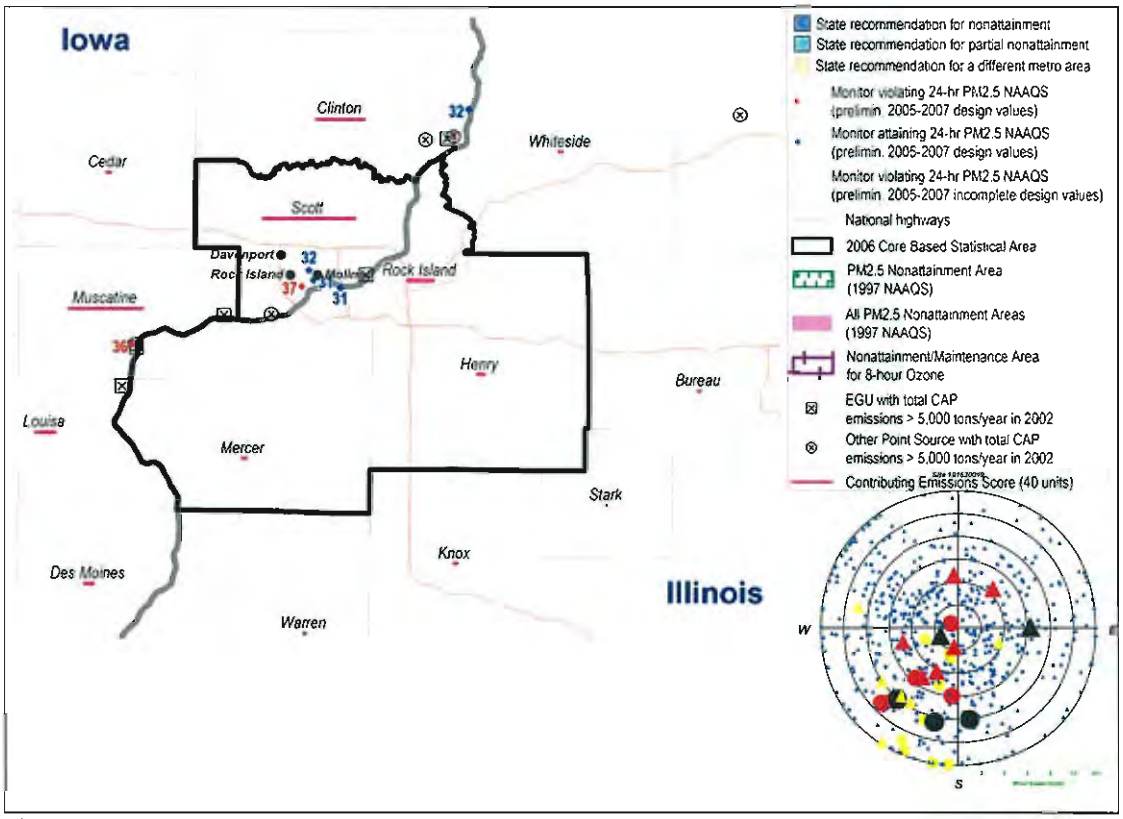

Figure 2

Factor 1: Emissions data

Table 1 shows emissions of $PM_{2.5}$ components (given in tons per year) and the CESs for potentially contributing counties in the Quad Cities area. Counties are listed in descending order by CES.

Table 1. $PM_{2.5}$ 24-hour Component Emissions, and CESs.

County	State Recommended Nonattainment?	CES	$PM_{2.5}$ emissions total (tpy)	$PM_{2.5}$ emissions carbon (tpy)	$PM_{2.5}$ emissions other (tpy)	SO_2 (tpy)	NOx (tpy)	VOCs (tpy)	NH_3 (tpy)
Scott, IA	No recommendation	100	2,034	395	1,639	9,173	11,317	9,323	1,986
Muscatine, IA	No recommendation	80	1,702	283	1,419	27,020	10,717	4,910	1,083
Clinton, IA	No	52	2,711	354	2,357	11,506	13,217	11,503	4,870
Rock Island, IL	No	27	932	269	663	2,169	6,140	7,359	664
Henry, IL	No	7	1,273	252	1,021	268	6,648	3,431	2,805
Mercer, IL	No	4	793	149	644	133	1,120	1,469	1,026

Rock Island County has a substantial fraction of the area's emissions.

Factor 2: Air quality data

The 24-hour $PM_{2.5}$ design values for counties in the Quad Cities area are shown in Table 2.

Table 2. Air Quality Data

County	State Recommended Nonattainment?	Design Values 2004-06 ($\mu g/m^3$)	Design Values 2005-07 ($\mu g/m^3$)
Scott, IA	No recommendation	32	37
Rock Island, IL	No	30	31
Henry, IL	No		
Mercer, IL	No		
Muscatine, IA	No recommendation	34	36
Clinton, IA	No recommendation	34	32

For purposes of its review, EPA used data available from the Chemical Speciation Network and the Interagency Monitoring of Protected Visual Environments (IMPROVE) network to estimate the composition of fine particle mass on days with the highest fine particle concentrations. On high concentration days during cold weather months in this area, EPA found on average a total urban contribution of 7.1 $\mu g/m^3$, consisting of 2.0 $\mu g/m^3$ of sulfate, 2.5 $\mu g/m^3$ of nitrate, 2.3 $\mu g/m^3$ of organic particles, and 0.3 $\mu g/m^3$ of miscellaneous inorganic particulate. On high concentration days during warm weather months in this area, EPA found on average a total urban contribution of 4.3 $\mu g/m^3$, consisting of 3.9 $\mu g/m^3$ of sulfate and 0.4 $\mu g/m^3$ of organic particulate emissions. These estimates were used for weighting of the emissions of different pollutants in calculating the contributing emissions scores.

Factor 3: Population density and degree of urbanization (including commercial development)

Table 3 shows the 2005 population for each county in the area being evaluated, as well as the population density for each county in that area. Population data give an indication of

whether it is likely that population-based emissions might contribute to violations of the 24-hour $PM_{2.5}$ standards.

Table 3. Population

County	State Recommended Nonattainment?	2005 Population	2005 Population Density (pop/sq mi)
Scott, IA	No recommendation	161,170	345
Rock Island, IL	No	147,454	327
Henry, IL	No	50,508	61
Mercer, IL	No	16,840	30
Muscatine, IA	No recommendation	42,567	95
Clinton, IA	No recommendation	49,744	70

Rock Island County has a substantial fraction of the area's population. Other Illinois counties have substantially lower populations.

Factor 4: Traffic and commuting patterns

Table 4. Traffic and Commuting Patterns

County	State Recommended Nonattainment?	2005 VMT (10^6 mi)	Number Commuting to any violating counties	Percent Commuting to any violating counties	Number Commuting into statistical area	Percent Commuting into statistical area
Scott, IA	No recommendation	1,614	61,500	79	74,020	95
Rock Island, IL	No	1,313	14,240	20	67,530	97
Henry, IL	No	695	1,870	8	22,340	91
Mercer, IL	No	135	1,200	15	6,570	85
Clinton, IA	No recommendation	423	2,610	11	3,600	15
Muscatine, IA	No recommendation	372	17,330	85	1,060	5

The listing of counties on Table 4 reflects a ranking based on the number of people commuting to other counties. The percentage of Rock Island County commuters commuting into Scott County, Iowa, is moderate but sufficient to view Rock Island County as integrated into a Quad Cities area.

Factor 5: Growth rates and patterns

Table 5 below shows population, population growth, VMT and VMT growth for counties that are included in the Quad Cities area. Counties are listed in descending order based on VMT growth between 1996 and 2005.

Table 5. Population and VMT Growth and Percent Change.

Location	Population (2005)	Population % change (2000-05)	2005 VMT (10^6 mi)	VMT % change (1996-2005)
Muscatine, IA	42,567	2	372	43
Clinton, IA	49,744	-1	423	39

Scott, IA	161,170	2	1,614	25
Henry, IL	50,508	-1	695	7
Rock Island, IL	147,454	-1	1,313	3
Mercer, IL	16,840	-1	135	-12

The growth rates are not likely to yield significant changes in the distribution of population during the SIP planning time horizon.

Factor 6: Meteorology (weather/transport patterns)

The pollution rose for the Quad Cities area is provided in the map above. The pollution rose for this area suggests that Rock Island County is upwind of Davenport on most high concentration days.

Factor 7: Geography/topography (mountain ranges or other air basin boundaries)

The Quad Cities area does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in the decision-making process.

Factor 8: Jurisdictional boundaries (e.g., existing PM and ozone areas)

Bi-State Regional Commission represents the Metropolitan Planning Organization (MPO) for urbanized area transportation planning in the Quad Cities area. The MPO serves Henry, Mercer, and Rock Island Counties in Illinois and Scott and Muscatine Counties in Iowa. Its web site is: **www.bistateonline.org**. This suggests that the MPO is already engaged in multi-county planning, which would facilitate multi-county SIP planning.

Factor 9: Level of control of emission sources

The emission estimates on Table 1 include any control strategies implemented by the States in the Quad Cities area before 2005 that may influence emissions of any component of $PM_{2.5}$ emissions (i.e., total carbon, SO_2, NOx, and crustal $PM_{2.5}$).

Review for the Paducah-Mayfield Combined Statistical Area

The only monitor in the Paducah-Mayfield area is in McCracken County, Kentucky. Kentucky requested concurrence on several claims that elevated concentrations were attributable to exceptional events, in particular due to wildfires. EPA reviewed this request, denied some of these claims, and concluded that the Paducah area is violating the 24-hour $PM_{2.5}$ standard.

The Paducah-Mayfield combined statistical area includes one county in Illinois: Massac County. This county has a relatively high fraction of the emissions in the area, and the winds commonly blow from Massac County into McCracken County on high

concentration days. A substantial fraction of the Massac County emissions are attributable to the Joppa Steam Plant.

In considering county-level emissions, EPA considered 2005 emissions data from the National Emissions Inventory. EPA recognizes that the Joppa Steam Plant may have installed emission controls or otherwise significantly reduced emissions since 2005 and that this information may not be reflected in this analysis. EPA will consider additional information on emission controls in making final designation decisions. In cases where specific plants already have installed emission controls or plan to install such controls in the near future, EPA requests additional information on:

- the plant name, city, county, and township
- identification of emission units at the plant, fuel use, and megawatt capacity
- identification of emission units on which controls will be installed, and units on which controls will not be installed
- identification of the type of emission control that has been or will be installed on each unit, the date on which the control device became / will become operational, and the emission reduction efficiency of the control device
- the estimated pollutant emissions for each unit before and after implementation of emission controls
- whether the requirement to operate the emission control device will be federally enforceable by December 2008, and the instrument by which federal enforceability will be ensured (e.g. through source-specific SIP revision, operating permit requirement, consent decree)

In the designation process for the 1997 PM2.5 standards, in some cases EPA identified a nearby county as contributing to a violating monitor, and it was determined that a very high percentage of the county's emissions came from a large power plant. In certain cases, EPA concluded that only the portion of the county including the source with the contributing emissions needed to be designated as nonattainment. If Illinois believes that a similar situation exists for Massac County, the State should provide EPA the necessary information to demonstrate that the source dominates the overall county emissions and to identify a reasonable partial county boundary.

In its designations for the 1997 standards, EPA included portions of counties in a number of cases in which large sources dominated the emissions from the county, such that EPA concluded that the relevant portion of the county was the only portion of the county that contributed to the violations. If Illinois believes this is the case in Massac County, for example if Illinois believes that only a single township containing the Joppa Steam plant contributes to violations in Paducah, Illinois should provide the information necessary to support this view.

EPA also examined information for other Illinois counties around the Paducah-Mayfield area. These other counties have relatively low emissions, and no other factor warrants their inclusion in the Paducah-Mayfield nonattainment area.

Figure 3 is a map of the counties in the area and other relevant information such as the locations and design values of air quality monitors, the metropolitan area boundary. Kentucky recommended that Paducah be found to be attaining the standard, and Illinois recommended that no Illinois counties be included if in fact the area was found to be violating, so this map shows no state recommended nonattainment area.

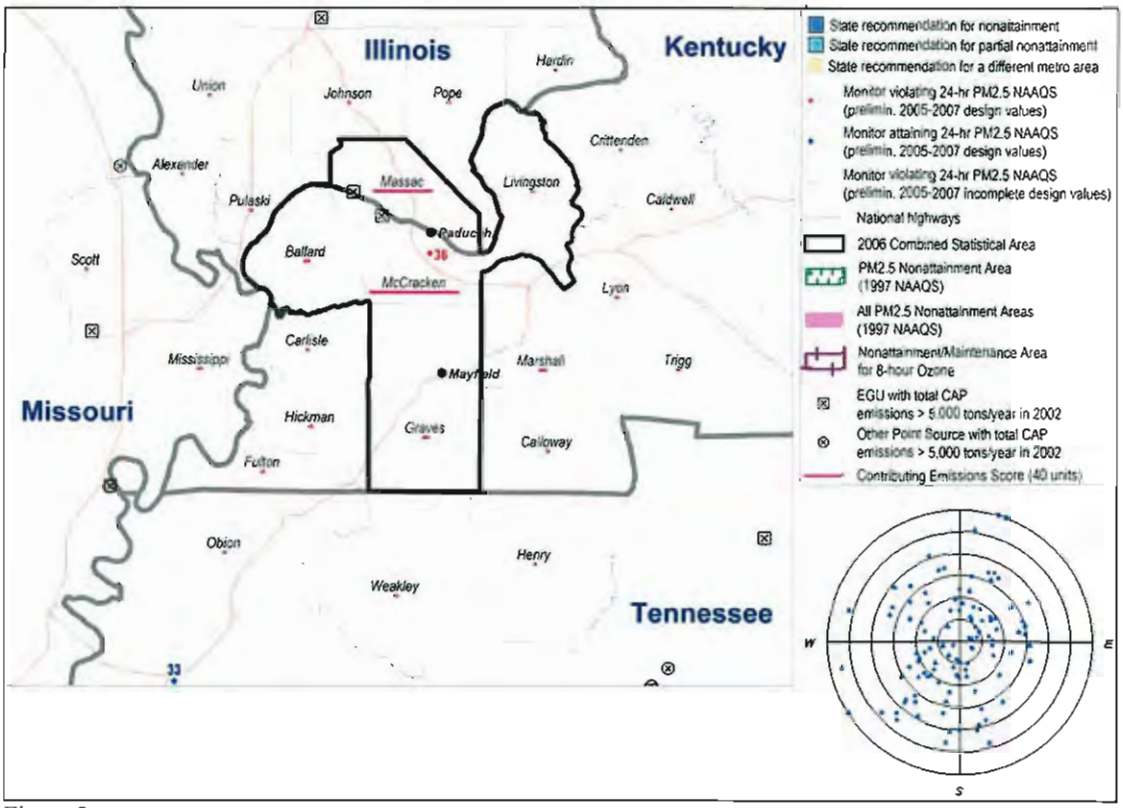

Figure 3

Factor 1: Emissions data

Table 1 shows emissions of $PM_{2.5}$ components (given in tons per year) and the CESs for potentially contributing counties in the Paducah area. Counties are listed in descending order by CES.

Table 1. $PM_{2.5}$ 24-hour Component Emissions, and CESs.

County	State Recommended Nonattainment?	CES	$PM_{2.5}$ emissions total (tpy)	$PM_{2.5}$ emissions carbon (tpy)	$PM_{2.5}$ emissions other (tpy)	SO_2 (tpy)	NOx (tpy)	VOCs (tpy)	NH_3 (tpy)
McCracken, KY	No	100	1,339	293	1,046	38,956	24,803	6,661	366
Massac, IL	No	66	1,958	159	1,799	26,884	12,369	2,612	417
Graves, KY	No	6	797	278	520	413	1,735	1,867	2,538
Ballard, KY	No	5	596	140	456	927	2,785	1,661	855
Livingston, KY	No	3	318	121	197	337	2,155	1,200	239

McCracken and Massac Counties have substantially greater emissions than any other nearby county.

Factor 2: Air quality data

The 24-hour $PM_{2.5}$ design values for counties in the Paducah area are shown in Table 2. The design value of McCracken County, Kentucky is above the 2006 $PM_{2.5}$ standard. There is no $PM_{2.5}$ air quality data for the other area counties.

Table 2. Air Quality Data

County	State Recommended Nonattainment?	Design Values 2004-06 ($\mu g/m^3$)	Design Values 2005-07 ($\mu g/m^3$)
McCracken, KY	No	33	36
Massac, IL	No		
Graves, KY	No		
Ballard, KY	No		
Livingston, KY	No		

For purposes of its review, EPA used data available from the Chemical Speciation Network and the Interagency Monitoring of Protected Visual Environments (IMPROVE) network to estimate the composition of fine particle mass on days with the highest fine particle concentrations. On high concentration days during cold weather months in this area, EPA found on average a total urban contribution of 4.3 $\mu g/m^3$, consisting of 0.9 $\mu g/m^3$ of sulfate, 2.2 $\mu g/m^3$ of nitrate, 1.2 $\mu g/m^3$ of organic particles, and no miscellaneous inorganic particulate. On high concentration days during warm weather months in this area, EPA found on average a total urban contribution of 5.2 $\mu g/m^3$, consisting of 3.0 $\mu g/m^3$ of sulfate and 2.2 $\mu g/m^3$ of organic particulate emissions. These estimates were used for weighting of the emissions of different pollutants in calculating the contributing emissions scores.

Factor 3: Population density and degree of urbanization (including commercial development)

Table 3 shows the 2005 population for each county in the area being evaluated, as well as the population density for each county in that area. Population data give an indication of whether it is likely that population-based emissions might contribute to violations of the 24-hour $PM_{2.5}$ standards.

Table 3. Population

County	State Recommended Nonattainment?	2005 Population	2005 Population Density (pop/sq mi)
McCracken, KY	No	64,690	241
Massac, IL	No	15,225	63
Graves, KY	No	37,650	68
Ballard, KY	No	8,262	30

Livingston, KY	No	9,783	29

McCracken County has most of the area's population; the population of Massac County is not a significant factor in determining the nonattainment area boundaries.

Factor 4: Traffic and commuting patterns

Table 4. Traffic and Commuting Patterns

County	State Recommended Nonattainment?	2005 VMT (10^6 mi)	Number Commuting to any violating counties	Percent Commuting to any violating counties	Number Commuting into statistical area	Percent Commuting into statistical area
McCracken, KY	No	832	24,200	84	26,830	93
Graves, KY	No	435	2,350	15	12,880	83
Massac, IL	No	225	1,950	30	5,860	90
Livingston, KY	No	174	1,770	41	3,580	82
Ballard, KY	No	102	1,290	35	3,380	92

The listing of counties on Table 4 reflects a ranking based on the number of people commuting to other counties. A modest number of people from Massac County commute into McCracken County.

Factor 5: Growth rates and patterns

Table 5 below shows population, population growth, VMT and VMT growth for counties that are included in the Paducah area. Counties are listed in descending order based on VMT growth between 1996 and 2005.

Table 5. Population and VMT Growth and Percent Change.

County	Population (2005)	Population % change (2000-05)	2005 VMT (10^6 mi)	VMT % change (1996-2005)
McCracken, KY	64,690	-1	832	26
Massac, IL	15,225	1	225	25
Graves, KY	37,650	2	435	21
Ballard, KY	8,262	-1	102	12
Livingston, KY	9,783	0	174	56

The growth rates are not expected to change the population distribution of the area significantly during the SIP planning time horizon.

Factor 6: Meteorology (weather/transport patterns)

A pollution rose for the Paducah area is provided in the map above. Both the pollution roses and the trajectory frequency information suggest that emissions from the full range of directions, including from the direction of Massac County, contribute to PM2.5 on high concentration days in Paducah.

Factor 7: Geography/topography (mountain ranges or other air basin boundaries)

The Paducah area does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in the decision-making process.

Factor 8: Jurisdictional boundaries (e.g., existing PM and ozone areas)

The Paducah maintenance area from its former one-hour ozone designation was comprised of Livingston and Marshall Counties in Kentucky. No portion of Illinois was in the Paducah ozone nonattainment area.

Factor 9: Level of control of emission sources

The emission estimates on Table 1 include any control strategies implemented by the States in the Paducah area before 2005 that may influence emissions of any component of $PM_{2.5}$ emissions (i.e., total carbon, SO_2, NOx, and crustal $PM_{2.5}$).

Review for the Saint Louis Combined Statistical Area

Discussion:
EPA reviewed relevant information for the nine counties (including four counties in Illinois) partly or fully within the area designated nonattainment for the 1997 standards as well as for surrounding counties. There are violating monitors in Madison County. Illinois recommended a definition of the nonattainment area for the 2006 standards that is similar to the boundaries that were established for the 1997 standards, including Madison, Monroe and St. Clair Counties along with a portion of Randolph County. Illinois recommended that the nonattainment area for the 2006 standards differ from the nonattainment area for the 1997 standards by the exclusion of the portion of Baldwin Township in Randolph County that is west of the Kaskaskia River.

EPA concurs with Illinois's recommendation to include Madison, Monroe, and St. Clair Counties in the St. Louis nonattainment area. However, EPA believes that all of Baldwin Township of Randolph County should be included as well. The most important factor influencing this judgment is the factor relating to jurisdictional boundaries. The inclusion of a full township will make nonattainment requirements easier to administer, since information on emissions and source locations are more readily available on a township basis than with respect to a specially defined subset of the township. Furthermore, EPA believes that establishment of a nonattainment area that fully matches the nonattainment area established for the 1997 standards would simplify nonattainment planning by assuring that identical requirements apply for an identical area. At the same time, as addressed in more detail in our documentation of our designations for the 1997 standards, Baldwin Township contains almost all of the emissions and therefore makes almost the entirety of the contribution of Randolph County to the violations, so that a designation of just Baldwin Township as nonattainment will suffice to address the contribution of this portion of the area.

In considering county-level emissions, EPA considered 2005 emissions data from the National Emissions Inventory. EPA has signed a consent decree that requires Dynegy to install and operate highly effective SO_2 control equipment at its Baldwin power plant by the end of 2010, 2011, and 2012 for its first, second, and third unit installations, respectively. EPA notes that these dates are between 2 and 4 years after the time we are judging what areas contribute to nonattainment. The company has already installed effective NOx control equipment. EPA welcomes any further relevant information that Illinois may have. EPA will consider additional information on emission controls in making final designation decisions. In cases where specific plants already have installed emission controls or plan to install such controls in the near future, EPA requests additional information on:

- the plant name, city, county, and township
- identification of emission units at the plant, fuel use, and megawatt capacity
- identification of emission units on which controls will be installed, and units on which controls will not be installed
- identification of the type of emission control that has been or will be installed on each unit, the date on which the control device became / will become operational, and the emission reduction efficiency of the control device
- the estimated pollutant emissions for each unit before and after implementation of emission controls
- whether the requirement to operate the emission control device will be federally enforceable by December 2008, and the instrument by which federal enforceability will be ensured (e.g. through source-specific SIP revision, operating permit requirement, consent decree)

EPA reviewed the relevant information for other counties within the combined statistical area as well as counties adjacent to the combined statistical area in order to determine the appropriate nonattainment area. Sangamon County has moderate emissions but is rarely upwind on days with elevated 24-hour $PM_{2.5}$ concentrations. Other Illinois counties in or near the combined statistical area have relatively low emissions, and no other factor warranted inclusion of the counties in the nonattainment area.

Figure 4 is a map of the counties in the area and other relevant information such as the locations and design values of air quality monitors, the metropolitan area boundary, and the counties recommended as nonattainment by the states.

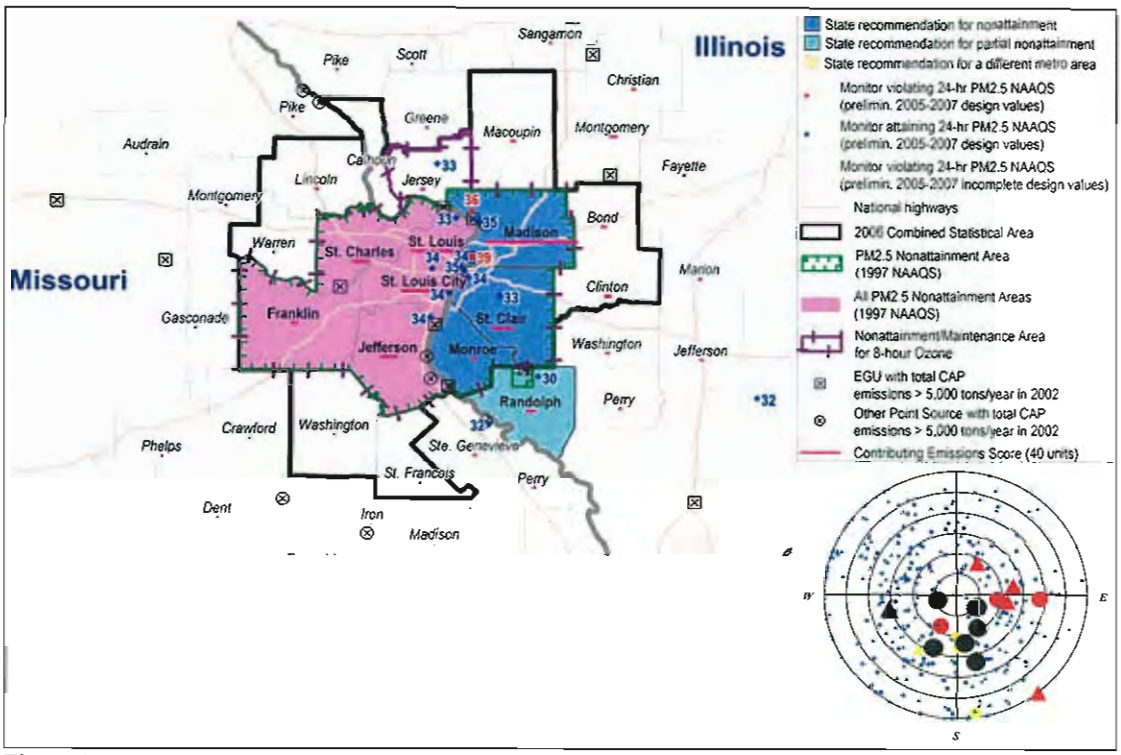

Figure 4

Factor 1: Emissions data

Table 1 shows emissions of $PM_{2.5}$ components (given in tons per year) and the CES for potentially contributing counties in the St. Louis area. Counties that are part of the St. Louis nonattainment area for the 1997 $PM_{2.5}$ NAAQS are shown in boldface. Counties are listed in descending order by CES.

Table 1. $PM_{2.5}$ 24-hour Component Emissions, and CES.

County	State Recommended Nonattainment?	CES	$PM_{2.5}$ emissions total (tpy)	$PM_{2.5}$ emissions carbon (tpy)	$PM_{2.5}$ emissions other (tpy)	SO_2 (tpy)	NOx (tpy)	VOCs (tpy)	NH_3 (tpy)
Madison, IL	**Yes**	**100**	**4,945**	**1,148**	**3,796**	**27,320**	**19,373**	**15,676**	**1,393**
St. Louis, MO	**No**	**55**	**4,221**	**1,707**	**2,513**	**29,966**	**55,605**	**54,821**	**2,954**
St. Louis City	**No**	**48**	**1,686**	**625**	**1,060**	**12,171**	**24,702**	**20,647**	**439**
St. Clair, IL	**Yes**	**22**	**1,496**	**487**	**1,009**	**2,142**	**10,233**	**10,869**	**1,281**
St. Charles, MO	**No**	**17**	**3,694**	**619**	**3,075**	**54,561**	**20,773**	**12,419**	**1,182**
Jefferson, MO	**No**	**16**	**2,945**	**824**	**2,121**	**45,574**	**16,722**	**9,273**	**493**
Randolph, IL	**Partial**	**9**	**2,505**	**306**	**2,199**	**24,605**	**9,384**	**2,331**	**993**
Montgomery, IL	No	7	2,463	263	2,200	41,131	12,122	2,789	1,055
Franklin, MO	**No**	**5**	**2,812**	**621**	**2,190**	**56,767**	**15,595**	**5,748**	**1,818**
Monroe, IL	**Yes**	**5**	**744**	**235**	**508**	**293**	**3,057**	**2,529**	**654**
Clinton, IL	No	5	923	206	717	506	2,982	2,919	2,890

The great majority of the emissions are in the existing nonattainment area.

Factor 2: Air quality data

The 24-hour $PM_{2.5}$ design values for counties in the St. Louis area are shown in Table 2.

Table 2. Air Quality Data

County	State Recommended Nonattainment?	Design Values 2004-06 ($\mu g/m^3$)	Design Values 2005-07 ($\mu g/m^3$)
Madison, IL	Yes	39	39
St. Louis, MO	No	32	34
St. Louis City, MO	No	34	35
St. Clair, IL	Yes	33	34
St. Charles, MO	No	32	33
Jefferson, MO	No	32	34
Randolph, IL	Partial	27	30
Franklin, MO	No		
Monroe, IL	Yes		
Montgomery, IL	No		
Clinton, IL	No		

For purposes of its review, EPA used data available from the Chemical Speciation Network and the Interagency Monitoring of Protected Visual Environments (IMPROVE) network to estimate the composition of fine particle mass on days with the highest fine particle concentrations. On high concentration days during cold weather months in this area, EPA found on average a total urban contribution of 12.1 $\mu g/m^3$, consisting of 2.2 $\mu g/m^3$ of sulfate, 9.1 $\mu g/m^3$ of organic particles, and 0.8 $\mu g/m^3$ of miscellaneous inorganic particulate. On high concentration days during warm weather months in this area, EPA found on average a total urban contribution of 7.1 $\mu g/m^3$, consisting of 3.3 $\mu g/m^3$ of sulfate and 3.8 $\mu g/m^3$ of organic particulate emissions. These estimates were used for weighting of the emissions of different pollutants in calculating the contributing emissions scores.

Thus, Madison, St. Clair, and Monroe Counties, Illinois, are violating the standard. The air quality data also help evaluate the relative importance of emissions of different pollutants in determining what additional counties contribute to the violations.

Factor 3: Population density and degree of urbanization (including commercial development)

Table 3 shows the 2005 population for each county in the area being evaluated, as well as the population density for each county in that area. Population data give an indication of whether it is likely that population-based emissions might contribute to violations of the 24-hour $PM_{2.5}$ standards.

Table 3. Population

County	State Recommended Nonattainment?	2005 Population	2005 Population Density (pop/sq mi)

Madison, IL	Yes	263,975	357
St. Louis, MO	No	1,002,258	1914
St. Louis City, MO	No	352,572	5334
St. Clair, IL	Yes	259,388	385
St. Charles, MO	No	329,606	557
Jefferson, MO	No	213,011	321
Randolph, IL	Partial	33,116	55
Franklin, MO	No	98,987	107
Monroe, IL	Yes	31,289	79
Montgomery, IL	No	30,304	43
Clinton, IL	No	36,138	72

Factor 4: Traffic and commuting patterns

Table 4. Traffic and Commuting Patterns

County	State Recommended Nonattainment?	2005 VMT (10^6 mi)	Number Commuting to any violating counties	Percent Commuting to any violating counties	Number Commuting into statistical area	Percent Commuting into statistical area
St. Louis, MO	**No**	**14,165**	**3,800**	**1**	**493,070**	**99**
St. Charles, MO	**No**	**3,185**	**740**	**0**	**147,420**	**99**
St. Louis City	**No**	**3,638**	**1,250**	**1**	**139,280**	**99**
Madison, IL	**Yes**	**2,318**	**75,490**	**62**	**119,590**	**98**
St. Clair, IL	**Yes**	**3,019**	**7,040**	**6**	**110,870**	**98**
Jefferson, MO	**No**	**2,241**	**490**	**1**	**96,860**	**99**
Franklin, MO	**No**	**1,436**	**150**	**0**	**43,600**	**97**
Clinton, IL	No	378	1,600	9	14,760	87
Monroe, IL	**Yes**	**359**	**420**	**3**	**13,560**	**95**
Randolph, IL	**Partial**	**261**	**180**	**1**	**2,790**	**21**
Montgomery, IL	No	525	290	2	1,300	10

The listing of counties on Table 4 reflects a ranking based on the number of people commuting to other counties. The counties that are in the nonattainment area for the 1997 $PM_{2.5}$ NAAQS are shown in boldface. These counties include the areas most integrated into the nonattainment area.

Factor 5: Growth rates and patterns

Table 5 below shows population, population growth, VMT and VMT growth for counties that are included in the St. Louis area. Counties are listed in descending order based on VMT change between 1996 and 2005.

Table 5. Population and VMT Growth and Percent Change.

County	Population (2005)	Population % change (2000-05)	2005 VMT (10^6 mi)	VMT % change (1996-2005)
Monroe, IL	**31,289**	**13**	**359**	**47**
St. Louis, MO	**1,002,258**	**-1**	**14,165**	**33**
St. Charles, MO	**329,606**	**15**	**3,185**	**28**
Montgomery, IL	30,304	-1	525	27
Franklin, MO	**98,987**	**5**	**1,436**	**19**

St. Clair, IL	**259,388**	**1**	**3,019**	**13**
Clinton, IL	36,138	2	378	11
Randolph, IL	**33,116**	**-2**	**261**	**2**
Jefferson, MO	**213,011**	**7**	**2,241**	**1**
St. Louis City, MO	**352,572**	**2**	**3,638**	**-8**
Madison, IL	**263,975**	**2**	**2,318**	**-12**

The growth rates are not expected to change the population distribution of the area significantly during the SIP planning time horizon.

Factor 6: Meteorology (weather/transport patterns)

The pollution rose for the St. Louis area is provided in the map above. Emissions from the southwest and southeast are most prone to contribute to nonattainment.

Factor 7: Geography/topography (mountain ranges or other air basin boundaries)

The St. Louis area does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in the decision-making process.

Factor 8: Jurisdictional boundaries (e.g., existing PM and ozone areas)
The East-West Gateway Council of Governments (EWGCC) is the Metropolitan Planning Organization (MPO) for the bi-state St. Louis area. EWGCC webpage: http://www.ewgateway.org/

The Illinois portion of the Saint Louis ozone nonattainment area consists of the following counties: Jersey, Madison, Monroe, and St. Clair.

Factor 9: Level of control of emission sources

The emission estimates on Table 1 include any control strategies implemented by the States in the St. Louis area before 2005 that may influence emissions of any component of $PM_{2.5}$ emissions (i.e., total carbon, SO_2, NOx, and crustal $PM_{2.5}$).

Background on Criteria EPA used to define its intended nonattainment areas

On June 8, 2007, in a memorandum from Robert Meyers to the EPA Regional Administrators, EPA issued guidance on a timetable for designation of areas violating the $PM_{2.5}$ air quality standards promulgated in 2006 and factors that EPA urged states to consider as they prepared recommendations for nonattainment area boundaries. This guidance was sent to the Governor of Ohio as an attachment to a letter dated July 9, 2007, requesting the State's recommendations. The guidance identified nine factors: emissions, air quality, population density and degree of urbanization, traffic and commuting patterns, growth rates and patterns, meteorology, geography/topography, jurisdictional boundaries, and level of control of emission sources.

The Clean Air Act dictates that nonattainment areas be defined to include both areas that are violating the standards and nearby areas that are contributing to the violations. Assessment of areas contributing to violations is complicated by the multiple pollutants that are components of fine particulate matter, the variable significance of these multiple components, and the complexities of photochemical formation and dispersion. To facilitate its review of available information, EPA prepared a "Contributing Emissions Score" (CES) for each potentially violating county. EPA derived a CES for each relevant county using information on emissions, air quality, and meteorology. The score for each county is computed relative to the highest scoring county in the area, so that scores range between 0 and 100. These scores represent an estimate of the relative maximum influence that emissions in that County have on a violating county. The weight that the CES plays in determining the boundaries of any violating area varies from area to area depending on how well the CES methodology takes into account characteristics of an area that impact transport and dispersion of $PM_{2.5}$ and depending on the significance of other factors.

Briefly, a CES for each county was derived by incorporating the following information and variables that impact $PM_{2.5}$ transport into the screening approach:

- Major $PM_{2.5}$ components: total carbon (organic carbon (OC) and elemental carbon (EC)), SO_2, NO_x, and inorganic particles (crustal).
- $PM_{2.5}$ emissions for the highest (generally top 5%) $PM_{2.5}$ emission days (herein called "high days") for each of two seasons, cold (Oct-Apr) and warm (May-Sept)
- Meteorology on high days using the NOAA HYSPLIT model for determining trajectories of air masses for specified days
- The "urban increment" of a violating monitor, which is the urban $PM_{2.5}$ concentration that is in addition to a regional background $PM_{2.5}$ concentration, determined for each $PM_{2.5}$ component
- Distance from each potentially contributing county to a violating county or counties

A more detailed description of the CES can be found at http://www.epa.gov/ttn/naaqs/pm/pm25_2006_techinfo.html#C.

Factor 1: Emissions data

For this factor, EPA looked at county-based levels of emissions of the following $PM_{2.5}$ components: $PM_{2.5}$ emissions total (which includes $PM_{2.5}$ emissions carbon and emissions other), $PM_{2.5}$ emissions carbon (includes organic particles and elemental carbon), and $PM_{2.5}$ emissions other (which includes inorganic particles ("crustal")), as well as emissions of SO_2 and NO_x which are precursors of secondary $PM_{2.5}$ components. Emissions data were derived from the 2005 National Emissions Inventory (NEI), version 1. See http://www.epa.gov/ttn/naaqs/pm/pm25_2006_techinfo.html. EPA also used emissions and other data to compute a Contributing Emissions Score (CES) for each county

Factor 2: Air quality data

This factor considers the 24-hour $PM_{2.5}$ design values, in $\mu g/m^3$, for air-quality monitors in counties in each area based on data for the 2004-2006 and 2005-2007 periods. A monitor's design value indicates whether that monitor attains a specified air-quality standard. The 24-hour $PM_{2.5}$ standards are met when the 3-year average of a monitor's 98^{th} percentile values are 35 $\mu g/m^3$ or less. A design value is only valid if minimum data completeness criteria are met. EPA is only using air quality data collected in accordance with 40 CFR 50 Appendix L and 40 CFR 58.

Factor 3: Population density and degree of urbanization (including commercial development)

The tables show the 2005 population for each county in the area being evaluated, as well as the population density for each county in the area. Population data give an indication of whether it is likely that population-based emissions might contribute to violations of the 24-hour $PM_{2.5}$ standards.

Factor 4: Traffic and commuting patterns

This factor considers the number of commuters in each county who drive to another county within the area, the percent of total commuters in each county who commute to other counties within area, as well as the total vehicle miles traveled (VMT) for each county in millions of miles. A county with numerous commuters is generally an integral part of an urban area and could be an appropriate county for implementing mobile-source emission control strategies, thus warranting inclusion in the nonattainment area.

The 2005 VMT data used for table 4 and 5 of the 9-factor analysis has been derived using methodology similar to that described in "Documentation for the final 2002 Mobile National Emissions Inventory, Version 3, September 2007, prepared for the Emission Inventory Group, U.S. EPA. This document may be found at: ftp://ftp.epa.gov/EmisInventory/2002finalnei/documentation/mobile/, in particular in the

file named 2002_mobile_nei_version_3_report_092807.pdf. The 2005 VMT data were taken from documentation which is still draft, but which should be released in 2008.

Factor 5: Growth rates and patterns

This factor looks at the population and VMT trends for the each area from 2000 to 2005, as well as patterns of population and VMT growth. A county with rapid population or VMT growth is generally an integral part of an urban area and could be an appropriate county for implementing mobile-source and other emission-control strategies, thus warranting inclusion in the nonattainment area.

Factor 6: Meteorology (weather/transport patterns)

For this factor, EPA considered data from National Weather Service instruments in the area. Wind direction and wind speed data for 2004-2006 were analyzed, with an emphasis on "high $PM_{2.5}$ days" for each of two seasons, an October-April "cold" season and a May-September "warm" season. These high days are defined as days where any FRM or FEM air quality monitors had 24-hour $PM_{2.5}$ concentrations above 95% on a frequency distribution curve of $PM_{2.5}$ 24-hour values.

For each air quality monitoring site, EPA developed a "pollution rose" to understand the prevailing wind direction and wind speed on the days with highest fine particle concentrations. The figure identifies 24-hour PM2.5 values by color; days exceeding 35 $\mu g/m^3$ are denoted with a red or black icon. A dot indicates the day occurred in the warm season; a triangle indicates the day occurred in the cool season. The center of the figure indicates the location of the air quality monitoring site, and the location of the icon in relation to the center indicates the direction from which the wind was blowing on that day. An icon that is close to the center indicates a low average wind speed on that day. Higher wind speeds are indicated when the icon is further away from the center.

EPA also conducted trajectory analyses to assess the likelihood that each county was upwind on high concentration days. EPA used these results directly and also used these results in computing each County's CES. Further documentation of this analysis is provided in the documentation of the derivation of the CES.

Factor 7: Geography/topography (mountain ranges or other air basin boundaries)

The geography/topography analysis looks at physical features of the land that might have an effect on the airshed and, therefore, on the distribution of $PM_{2.5}$ over the area.

Factor 8: Jurisdictional boundaries (e.g., existing PM and ozone areas)

In evaluating the jurisdictional boundary factor, consideration should be given to existing boundaries and organizations that may facilitate air quality planning and the implementation of control measures to attain the standard. Areas designated as

nonattainment such as those for the 1997 $PM_{2.5}$ standards or 8-hour ozone standard represent important boundaries for state air quality planning.

Factor 9: Level of control of emission sources

This factor considers emission controls currently implemented in the area. The emission estimates under Factor 1 include any control strategies implemented in each area before 2005 that may influence emissions of any component of $PM_{2.5}$ emissions (i.e., total carbon, SO_2, NOx, and crustal $PM_{2.5}$).